Federal Interagency Committee on Indoor Air Quality
CIAQ Quarterly Meeting
Wednesday, 21 April 2004
Meeting Minutes

These minutes include the Agenda, Agency IAQ Updates, an abstract of the Presentation w/attachments, and other attachments. As usual, this meeting was held in EPA's offices at 1310 L St., NW, Washington, DC 20005-4113, Conference Room 152. Visit http://www.epa.gov/iaq/ciaq/index.html for more information about the CIAQ, or contact Philip Jalbert, EPA Indoor Environments Division (IED), Office of Radiation and Indoor Air (ORIA)(jalbert.philip@epa.gov, 202.343.9431).

The ***next CIAQ meeting*** is Wednesday, October 20, 2004 (1:00 – 3:30 pm)

Federal Interagency Committee on Indoor Air Quality
CIAQ Quarterly Meeting
[Room 152, 1310 L St., NW, Washington, DC 20005-4113]
Wednesday, July 21st 2004
~ AGENDA ~

1:00 pm	**Welcome and Introductions**: Tom Kelly, EPA Co-Chair
1	General IAQ News Items, Phil Jalbert
1:10 pm	**IAQ Updates from CIAQ Member Departments and Agencies**
2	Consumer Product Safety Commission (CPSC), Treye Thomas
3	Department of Housing & Urban Development (HUD), Ellen Taylor
4	Department of Agriculture (USDA), Joseph Wysocki
5	Department of Energy (DOE), Chris Early
6	Environmental Protection Agency (EPA), Tom Kelly
1:45 pm	**Presentation and Discussion:** Weatherization *Plus* Health Protocol, by Ellen Taylor, HUD

1-General IAQ News Items (Phil Jalbert, jalbert.philip@epa.gov, 202-343-9431**)**

1.1-Green Buildings Legislation. In early July Senators Jeffords and Lautenberg introduced the "High-Performance Green Buildings Act of 2004" (S.2620).

1.2-ELI State IAQ Laws Database. Visit the Environmental Law Institute's website (http://www.eli.org/research/iaqdatabases2004) for new information on state IAQ laws. The database was developed with support from the U.S. EPA's Indoor Environments Division. It includes a wide variety of state policies addressing indoor air quality generally, as well as laws that address specific topics such as mold or radon. For more information visit the ELI website or contact Ms. Tobie Bernstein (bernstein@eli.org).

1.3-Carpet and Rug Institute (CRI). CRI on June 14 announced it has upgraded its voluntary indoor air quality-testing program to meet or exceed low-emitting criteria used by California schools. The "Green Label Plus" independent testing program represents the fourth time it has enhanced its carpet-testing standard, a measurement by which manufacturers continue to reduce product emissions, CRI said. A California school that

qualifies for rating as a Collaborative for High Performance School earns points for meeting criteria for chemical concentrations for a typical classroom. Air Quality Sciences, an Atlanta-based independent laboratory, will perform testing for Green Label Plus, according to CRI. The institute said it developed the program by working in coordination with California's Sustainable Building Task Force and the Department of Health Services, Indoor Air Quality Section.

1.4-Hong Kong's Indoor Air Quality Rating System. Steven Welty has written an article about the Hong Kong program; copies were made available as handouts (copy attached [Hong Kong IAQ IECJune 3.pdf]).

1.5-Frasier Finale. In this final (May 4) episode, Frasier while on the phone with his ex-wife Lileth thanks her for the radon detector she gave as a gift to his father and new wife.

Agency IAQ Updates

2-CPSC, Consumer Product Safety Commission, Treye Thomas (tthomas@cpsc.gov, 301-504-7738).

2.1-Status of the school chemical safety booklet

- Booklet was drafted, input from EPA and NIOSH was obtained and incorporated.
- The draft was reviewed twice informally with CPSC and by EPA and NIOSH and comments incorporated each time.
- The draft booklet is undergoing formal review at CPSC.
- This review is expected to be completed in couple weeks and there after the booklet will be sent to EPA, NIOSH and possibly to other interested parties for formal review.

2.2-The Arts and Crafts Safety Handbook

- Currently in draft form.
- Under review by CPSC management before going to external experts for comment.

2.3-Vented Gas Appliance Sensor Project.

- Historically, gas-heating systems have been related to a large percentage of unintentional non-fire CO poisoning deaths associated with a consumer product in the United States.
- From 1994-1998, there were an average yearly estimated 106 CO poisoning deaths associated with natural gas, LP-gas, and unspecified gas heating systems.
- Based on the most recent data available (1999-2000), of the estimated average of 124 CO poisoning deaths yearly related to a consumer product, heating systems were associated with 66 deaths (a yearly average of 52% of the total consumer product estimate, 62% of the total estimate excluding engine-powered tools).
- The goal of this project is reduce the number of CO poisoning deaths associated with this group of products. In 2000, CPSC staff proposed that the ANSI Z21 Committee adapt performance standards for gas furnaces (residential) that would require shutdown or some other preemptive response to flue concentrations of carbon monoxide (CO) in excess of 400 parts per million (ppm) air-free.

- CPSC staff supported this proposal with testing that demonstrated that this performance goal could be accomplished through the use of gas sensors integrated into a gas furnace.
- In 2002, the ANSI Z21 Committee opted to evaluate CPSC's proposal and test report for a wide range of vented gas heating appliances. The Committee formed a working group to evaluate the use of gas sensors to provide shutoff response to concentrations of CO in excess of 400 parts per million (ppm) air-free in the flue passageways of all vented gas heating appliances. CPSC staff is a participating member of that working group.
- In 2004, Sandia National Laboratories, through Department of Energy funding, entered into an agreement with the CPSC to develop one of it's micro-electromechanical system (MEMS) based sensor technologies for this application.
- The development will occur over a year-long period with CPSC staff involvement in defining sensor operating environment and integrating a prototype sensor into a gas furnace.

3-HUD, Department of Housing and Urban Development, Ellen Taylor, Office of Healthy Homes and Lead Hazard Control

3.1-HUD Office of Healthy Homes and Lead Hazard Control Grant Programs for FY2004. The HUD SuperNOFA, which contains the Notice of Funding Availability (NOFA) for the Healthy Homes and Lead Hazard Control Grants, was published in the Federal Register on May 14, 2004. The amounts of funding available for the specific Healthy Homes and Lead Hazard Control Grants are:

Lead Hazard Control Grant Program - $95,000,000
Lead Hazard Reduction Demonstration Grant Program - $50,000,000
Operation Lead Elimination Action Program (LEAP) - $9,000,000
Healthy Homes Demonstration Grant Program - $5,000,000
Lead Outreach Grant Program - $2,000,000
Healthy Homes Technical Studies - $2,000,000
Lead Technical Studies - $3,000,000

The application due date was JULY 13, 2004 for all OHHLHC Programs. Individual Program NOFAs, the General Section of the Super-NOFA, and other details can be downloaded from: www.grants.gov or www.hud.gov/offices/lead or obtained from the Super-NOFA Information Center at 1-800-HUD-8929.

3.2-Lead Safe Housing Rule Training via Webcast and Satellite. The Office of Healthy Homes and Lead Hazard Control has scheduled training for all HUD headquarters and field staff via a webcast on July 28, 2004. The 3 hours training is being coordinated through the HUD Training Academy. Representatives from the Centers for Disease Control and Prevention (CDC) and the Environmental Protection Agency (EPA) will participate as part of our tri-agency effort that targets lead as both a health and housing hazard. The training session will open with a mini-play presented by the St. Louis Black Repertory Theatre entitled "Jimmy Gets Better." This mini-play is a depiction of a lead-poisoned child and the poisoning's impact on that child's development. This play, which

was presented at the 2004 Lead and Healthy Homes Grantee Conference, delivers a powerful message on the impact of lead poisoning children's development. Participants from HUD offices will speak about their strategies to implement the Lead Safe Housing Rule in order to meet the 2010 zero goal. A 30-60 minute question and answer period will follow the presenters. The training is scheduled for a webcast from 1:00pm to 4:00pm EST on July 28, 2004 and may be viewed at local HUD offices. Visit www.hud.gov/offices/lead for satellite coordinates for other locations.

3.3-HUD/CDC/EPA National Lead and Healthy Homes Grantee Conference Update. The Tri-Agency Grantee Conference attracted over 800 participants to Orlando last month from federal, state and local governments and nonprofit organizations. Fifty sessions were offered about current grantee activities and the healthy homes and lead initiatives being undertaken by HUD, CDC, and EPA. Presentations and information regarding the conference is available on the web at www.hud.gov/offices/lead. For more information on these HUD related items, contact:
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4-USDA, Department of Agriculture, Joseph Wysocki (**jwysocki@crees.usda.gov**, 202-401-4980). USDA is coordinating the annual national radon poster contest with several other organizations. USDA is also involved in a DOE funded pilot project on getting IAQ and moisture information into the hands of homebuilders in six states including Alaska, Florida, Minnesota and Delaware. Also, USDA is involved in developing a TV program involving Home Depot and Home & Garden analogous to 'Trading Spaces' on IAQ and energy issues.

5-DOE, Department of Energy Update, Chris Early (chris.early@ee.doe.gov, 202-586-0514). We have two under-floor air distribution projects (UFAD). LBNL conducted short term monitoring of an office building in Pennsylvania. This also included a survey of the occupants. LBNL used tracer gas to measure ages of air at workstation breathing zone locations and in exhaust air streams. They will use these data to determine the air change effectiveness. LBNL also measured the pollutant removal efficiency using carbon dioxide. The coincident HVAC operating conditions will be assessed through monitoring of supply air temperatures and samples of flow rates through the floor mounted supply registers. Other operating data will be obtained from the building's EMCS system. In addition, using vertical arrays of temperature sensors, LBNL characterized the level of thermal stratification. LBNL is currently analyzing the data.

The National Center for Energy Management and Building Technology (NCEMBT) has started a larger UFAD project at the University of Nevada at Las Vegas (UNLV). UNLV will conduct laboratory measurements of various configurations of UFAD systems in a large lab on campus. They are currently designing the lab setup.

GARD Analytics is conducting a survey of building owners with UFAD systems to determine system characteristics, performance and occupant satisfaction. Thus far GARD has not found any UFAD projects where energy savings or performance has been measured. If anyone knows of any UFAD installation where these measurements have been taken, please call or email Terry Logee at 202-586-1689 or terry.logee@ee.doe.gov.

The NCEMBT at UNLV also is preparing to conduct short term monitoring (1-2 weeks) and an occupant survey in thirty buildings located in five U.S. cities during two seasons. Performance parameters that will be assessed will include, but may not be limited to, ventilation, temperature, humidity, sound, and fungal (mold) contamination. The UNLV has started to develop the protocol and is ordering instrumentation.

The NCEMBT at UNLV is also conducting laboratory airflow, energy, and sound tests on selected typical installations of ducted VAV systems to develop a body of valid engineering design data. This project will provide measured data on the effects of poor duct installations between air terminal units and room diffusers, leaky diffuser plenums, improperly placed volume dampers, and improper diffuser connections on building air distribution, energy, and sound. UNLV will convene a panel of experts in the next six weeks to identify typical field installations that UNLV can replicate and test in its laboratory.

LBNL is partnering with Bard Co. to develop a ventilation and air conditioning efficiency specification for improved fans, ventilation dampers and controls of a high-efficiency wall-mounted heat pump air conditioning unit. These wall mount heat pump units are used extensively in re-locatable classrooms and also in many small manufactured office buildings. Compared to current wall mount HVAC systems, the upgraded unit will have overall energy savings of approximately 25%-30%. Bard is currently testing the prototype wall HVAC unit and LBNL expects to install it in their classroom laboratory in August.

LBNL is continuing work on ventilation rate measurement products and a test method. It is evaluating the accuracy and airflow resistance of four emerging technologies from Ruskin, American Monitor Corporation, Federspiel Controls and Ebtron for measuring rates of outside air intake. LBNL will also evaluate two measurement concepts that promise to improve upon existing technologies and it will assess the performance of the most promising products under windy conditions. The test method and associated hardware will be refined as needed for a subsequent proposed standard industry test method to the ASHRAE 4.3 TC, or the Air Movement and Control Association. LBNL has completed the tests of the four manufactured products and is currently testing the refinements. Data are still being analyzed, but look promising as long as a modest pressure drop is maintained across the outdoor air damper.

LBNL is also starting to study the EPA BASE Data for ventilation rates to develop information on minimum ventilation requirements and metrics for office buildings that can be used for future revisions of ASHRAE's commercial ventilation standard. LBNL will use multivariate statistical modeling to analyze the BASE data and

determine how various ventilation rate metrics (e.g., per person, per unit floor area, or combinations) are related to health symptoms. The data was just released so the project has just begun.

6-EPA, Environmental Protection Agency, Tom Kelly

6.1-Federal Family Radon Policies/Programs. Thanks to those of you that responded to our January request, particularly the Navy, GSA and Bonneville Power (DOE). We will be doing more follow-up on this issue later this Summer and Fall.

6.2-New ORD/IEMB Branch Chief. In late April, Bob Thompson was selected as the new chief of the Indoor Environments Management Branch (IEMB) in EPA's Office of Research and Development (ORD). Bob can be reached at 919-541-1904 or Thompson.Bob@epa.gov; he was previously with the HQ Indoor Environments Division.

6.3-ORD IAQ Agenda. ORD presented a very extensive report on their IAQ related activities at the last CIAQ meeting. Please see the minutes for the April 21st meeting on the CIAQ website for more information (http://www.epa.gov/iaq/ciaq/index.html).

ASTHMA

6.4-Asthma. EPA and CDC will begin distribution of an asthma trigger awareness pamphlet specifically targeting people with limited reading skills, disproportionately impacted by asthma. This pamphlet was developed in collaboration with a Health Literacy expert to ensure that content, presentation, and design appropriately address the target audience needs. In addition, the pamphlet was field tested with target audience to determine it's effectiveness. The point of contact is Dave Rowson, Director, Center for Healthy Buildings/IED/EPA, 202-343-9449.

6.5-Asthma Meeting. Elizabeth Cotsworth, Director ORIA, launched a new recognition program on June 17th at the America's Health Insurance Plans (AHIP) 2004 Institute in Chicago, Illinois. The new program will recognize health plans and health care providers with programs that effectively incorporate environmental management techniques to address asthma. An inaugural leadership award will be presented to AHIP to recognize their dedication to the reduction of childhood asthma. AHIP is a national trade association representing nearly 1,300 member companies providing health insurance coverage to more than 200 million Americans. ORIA has partnered with AHIP's *Taking on Asthma Initiative* for the past three years.

ETS (Second-hand Smoke)

6.6-EPA/HHS: Head Start Bureau Partnership. Because of a very successful introduction of ORIA's Smoke-free Homes program to 3,800 parents, program directors, and other staff at a Head Start conference in Dallas June 14-18, the Head Start Bureau has asked ORIA staff to participate in another conference for Head Start Program Directors during July. As a result of efforts at the June 14-16 Conference, 1,050 conference participants signed the Smoke-Free Homes pledge, 500 more than we had hoped for. Plans are now underway for an official joint partnership launch and signing of a Memorandum of

Understanding by HHS Secretary, Tommy Thompson and, if available, Administrator Leavitt later this summer.

6.7-EPA Employee Pledge Campaign. The Environmental Tobacco Smoke Team is planning to take its important Smoke-free Homes Pledge Campaign to all our colleagues Agency-wide in the next couple of months. Through a message from the Administrator or our Assistant Administrator, Jeff Holmstead, (yet to be determined), we hope to encourage our colleagues to help the Agency "lead by example" in protecting especially young children from secondhand smoke exposure. We are still working on the details, but are also planning to have a booth in the EPA cafeteria at certain times and to place an article into EPA's publications.

SCHOOLS

6.8-Schools Briefing for the Children's Health Protection Advisory Committee (CHPAC). At the request of the Children's Health Protection FACA, Bob Axelrad provided a briefing on May 27th on the Healthy School Environments effort to better coordinate and integrate all of EPA's schools programs. The CHPAC has had a strong interest in the schools issue and previously made a series of recommendations to the former Administrator about actions EPA should take to make school environmental health a priority.

IAQ

6.9-US Green Building Council. On June 21, Ken Sandler, as Co-Chair of the EPA Green Building Workgroup, facilitated the first meeting between the Workgroup and the U.S. Green Building Council (USGBC). The Workgroup is seeking to develop a closer relationship with USGBC, particularly to facilitate EPA input into the highly successful LEED (Leadership in Energy & Environmental Design) green building rating system – including improving the quality of LEED credits and guidance on indoor air.

6.10-Partnership for Clean Indoor Air Grant Awarded. ORIA awarded a $92,000 grant to HELPS International, Inc. to implement a household energy project in Guatemala to design a low-cost retained heat cooker (RHC) that uses local and applicable materials and can be mass-produced. They anticipate an additional 15% saving in firewood in homes already using an improved cook-stove with a 70% reduction in firewood use.

HELPS will maximize education and training efforts by training other established non-governmental organizations who will then promote retained heat cookers in local communities using women promoters. HELPS will establish a distribution method working through established local organizations to deliver 1500 RHC units to interested communities. They will also establish an organization for the continuing, financially sustainable production and distribution of retained heat cookers. This is the first of eleven grants to be awarded under the Partnership for Clean Indoor Air, for a total of $1.3 million.

MOLD

6.11-Conference - Mold-related Health Effects. Laura Kolb and Susan Conrath of EPA/IED represented EPA at a Mold Conference sponsored by NIH, Johns Hopkins, NIEHS and others on June 28/29. The topics covered included clinical issues, worker protection, and biomedical research issues. Laura presented the EPA perspective during the federal panel discussion on 6/29/04 and Marsha Ward (ORD) presented on EPA's mold allergy research.

RADON

6.12-The 14th National Radon Meeting. The 2004 meeting will be held in Newport, Rhode Island on November 7-10, 2004. The first day of the meeting is a joint session with the American Association of Radon Scientists and more than 400 radon professionals including more than 100 state and local radon program directors as well as radon educators, and radon testing and mitigation professionals are expected to participate. Contact Dave Rowson, Dir., Center for Healthy Buildings, 202-343-9449.

6.13-Radon Presentation at Clean Air Act Advisory Committee meeting June 24th. IED Director**,** Tom Kelly facilitated a session at the June 24th CAAAC meeting on how to achieve greater radon risk reduction. This was the first time IED discussed radon with the CAAAC. The presentation is part of a larger Radon Revitalization Campaign with existing/potential stakeholders. Tom discussed the new radon risk information we have, program accomplishments to-date, and the need for increased action, and to solicit ideas and advice from CAAAC members about how to boost interest in and results on this important public health issue.

6.14-World Health Organization (WHO). IED's Radon Team will be working with the WHO, which is extending its activities on residential radon exposure. The objectives of the WHO radon program include: (1) Building a network of agencies involved in radon exposure assessment and mitigation programs, and encouraging other countries at risk to join the network; (2) Creating a world-wide database of national and international authorities/institutions dealing with radon issues and research, national residential radon levels, radon action levels, radon regulations and other mitigation strategies; and (3) preparing public health guidance to raise awareness of radon and methods for dealing with it. The project is intended to estimate the global health burden of disease associated with exposure to residential radon and begin monitoring programs to determine the effectiveness of mitigation strategies.

7-PRESENTATION: The Weatherization *Plus* Health Protocol, Ellen Taylor, HUD.

HUD's Weatherization Plus Health (WPH) program utilizes the existing structure of weatherization programs to implement an enhanced weatherization service in combination with improvements for healthier residential living conditions and higher overall quality of service. The WHP adds two levels of service to core weatherization programs, i.e., 'do no harm' and 'improve the indoor environment'. Please see the attachments (WX Plus health 1 Chart.pdf and WX Plus health_Rv2.pdf) for more detailed information, or contact Ellen Taylor (202-755-1788 ext 116, ellen.r.taylor@hud.gov).

8-Attendees

Do, Trinh	NAVY	dotn@nfesc.navy.mil	703-868-2582
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